

II. CLAIM AMENDMENTS

1.(currently amended) A method for choosing a connection-specific channel coding and/or interleaving scheme comprising: to be applied in

requesting a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system; where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of:

-generating a request message at the mobile terminal and as part of said requesting a specific communication connection, communicating said a request message, to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters selected by said mobile terminal based on an expected use of said specific communication connection, for independent application to to be associated with said requested specific communication connection,

allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;

-mapping said desired set of Quality of Service parameters to a certain first said allocated channel coding and/or interleaving scheme as a part of the connection-specific allocation of the channel coding and/or interleaving scheme; allocation made by the decision-making device and

_____ communicating said ~~first allocated~~ channel coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said first channel coding and/or interleaving scheme for use in said specific communication connection.

2. (allowed) A method for choosing a connection-specific channel coding and/or interleaving scheme to be applied in a communication connection over a radio interface between a terminal and a base station of a cellular packet radio system where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of:

- communicating a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the terminal and the base station or changing the characteristics of an existing radio bearer between the terminal and the base station and indicating a certain set of Quality of Service parameters associated with a certain first communication connection,
- mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device and
- communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection;

wherein the step of communicating a request message to the decision-making device further comprises the mutually alternative substeps of:

a1) indicating, within said set of Quality of Service parameters, high service precedence, short mean delay and short maximum delay when the request message concerns a certain communication connection for transmitting real-time

speech and/or real-time video image, or

a2) indicating, within said set of Quality of Service parameters, low service precedence, long mean delay and long maximum delay when the request message concerns a certain communication connection for transmitting non-real time data;

and

- the step of mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme comprises the mutually alternative substeps of

b1) mapping the set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme with no retransmissions and a long interleaving length, or

b2) mapping the set of Quality of Service parameters indicating low service precedence, long mean delay and long maximum delay into a channel coding scheme with retransmissions and a short interleaving length.

3. (allowed) A method according to claim 2, wherein step b1) further comprises the feature of mapping said set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme which is optimized for speech.

4.(currently amended) A method according to claim 1, wherein the step of communicating a request message ~~to the decision-making device~~ is executed as a response to an observed need for setting up a new radio bearer between the mobile terminal and the base station.

5.(currently amended) A method according to claim 1, wherein the step of communicating a request message ~~to the decision-making device~~ is executed as a response to an observed need for changing the characteristics of an existing radio bearer between the mobile terminal and the base station.

6. (currently amended) ~~An arrangement~~Apparatus for choosing a connection-specific channel coding and/or interleaving scheme comprising: to be applied in a specific communication connection over a radio interface, comprising:

- a mobile terminal, a base station and a radio interface between them,
- a certain decision-making device for allocating channel coding and/or interleaving schemes to communication connections,

- ~~within wherein~~ the mobile terminal means is adapted to request a specific communication connection with said base station over said radio interface, said request for a specific communication connection further including for generating a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters selected by said ~~mobile terminal~~ based on an expected use of said specific communication connection, for independent application to to be associated with said requested specific communication connection,

- ~~within wherein~~ the decision making device is adapted to allocate a channel coding and/or interleaving scheme for independent application to said requested specific communication connection based, at least in part, on said desired Quality of Service parameters, and is further adapted to map said desired Quality of Service parameters to said allocated channel coding and/or interleaving scheme

as a part of the allocation of the channel coding and/or interleaving scheme;
and

~~, means for mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation and~~

~~--means for wherein said decision making device is adapted to communicating~~
communicate said first channel allocated coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said first allocated channel coding and/or interleaving scheme for use in said specific communication connection.